Nicaragua

When the Expedition was about to leave San Francisco for New York wishing to ~~avoid~~ escape the tedious voyage round the Horn & to spend the time which would be so ~~spent~~ required more profitably as I thought I asked & obtained permission to return by way of Nicaragua with the view of spending some weeks there in botanical researches I arrived at San Juan del Sur ~~on the~~ about the middle of February 1856 & proceeded to Virgin Bay. This I made my head-quarters & for two months secured such plants as were in season in that vicinity besides making excursions to the Pacific coast & to Omotepec an island in the Lake The result of these labors is shown in the enumeration here presented

Nicaragua

Uvaria sp.
Uvaria sp.? (1)
Cissampelos Pareira Linn.
Capparis amygdalina Linn.
Capparis frondosa Jacq.
Capparis oxysepala sp. n.? (2)
Crataeva sp.?
Bixa Orellana Linn.
Cochlospermum hibiscoides Humb. & Bonp.
Polygala paniculata Linn.
Securidaca erecta Linn.
Malvaviscus grandiflorus H.B.K.
Sida acuta Burm.
Sida rhombifolia Linn.
Sida pyramidata Cav
Kosteletzkya punctulata sp. n. (3)
Malvastrum spicatum Gray
Pachira aquatica Aubl.
Sterculia carthaginensis Cav.
Helicteres guazumaefolia H.B.K.
Guazuma tomentosa Kth.
Waltheria americana Linn.
Melochia nodiflora Sw.
Corchorus aestuans Linn.?
Triumfetta Lappula Linn
Luhea platypetala Rich.? (5)
Freziera undulata Sw
Clusia venosa Jacq.?

Hippocratea integrifolia Rich?
Byrsonima Cumingiana A. Juss.
Stigmaphyllon Lindenianum A. Juss.
Banisteria? sp. (6)
Urvillea Berteriana DC.
Serjania sp?
Serjania paucidentata DC.
Serjania velutina Camb.
Paullinia fuscescens H.B.K.
Thouinia decandra H.B.K.
Cupania scrobiculata H.B.K.
Trichilia trifoliata Linn.
Trichilia Havanensis Jacq
Trichilia quadrijuga H.B.K.
Trichilia spondioides Sw?
Guarea sp?
Cissus sicyoides Linn
Spondylantha aphylla Presl.
Oxalis hedysaroides H.B.K.
Simaruba glauca DC.
Quassia amara L. f.
Gomphia nitida Sw.
Casearia parviflora Willd
Casearia corymbosa H.B.K.
Xylosma nitidum A. Gray
Spondias purpurea Linn
Mangifera Indica Linn.
Indigofera Anil Linn.
Tephrosia decumbens Benth
Aeschynomene sulcata H.B.K.

Zornia diphylla Pers.
Desmodium cinereum DC
Desmodium scorpiurus Desv.
Desmodium triflorum DC.
Glycine botrydium Walp.
Centrosema Salzmanni Benth.
Stenolobium coeruleum Benth.
Mucuna elliptica DC?
Erythrina glauca Willd
Erythrina Corallodendron Linn.
Phaseolus lunatus Linn.
Phaseolus Truxillensis H.B.K.
Centrosema pubescens Benth?
Canavallia gladiata DC.
Rhynchosia precatoria DC.
Rhynchosia minima DC.
Lonchocarpus sericeus H.B.K?
Glyricidia maculata Kunth
Sesbania macrocarpa Muhl.
Cassia Brasiliana Lam.
Cassia bicapsularis Linn.
Cassia biflora Linn
Cassia lotoides H.B.K.
Cassia arborescens Mill?
Cassia reticulata Willd.
Casparea porrecta Kunth
Bauhinia inermis Pers.
Inga spuria Willd
Mimosa asperata Linn.
Schrankia leptocarpa DC

Acacia Farnesiana Willd.
Acacia spadicigera Cham. & Schlecht
Lysiloma Schiedeana Benth.
Pithecolobium dulce Benth.
Pithecolobium glomeratum Benth?
Calliandra Saman Gris.
Rourea frutescens Aubl.
Rourea glabra Kunth
Connarus alatus sp. n.
Combretum farinosum H. B. K.
Combretum Mexicanum H. B. K.
Jussiaea acuminata Sw.
Jussiaea ligustrifolia H. B. K.?
Jussiaea octofila DC.
Ammannia humilis Mich
Oreocosmus Naudinianus Naud.
Monochaetum triplinerve Naud.
Miconia microbotrya Naud.
Psidium Guajava Raddi
Gunnera Chilensis Lam
Melothria pendula L.
Syzygium Schiedeanum Schlecht
Begonia hemitoma sp. n.
Passiflora foetida Cav.
Turnera ulmifolia L.
Hydrocotyle ranunculoides Linn.
Eryngium foetidum Linn.
Opuntia sp?
Cereus sp?
Aralia sp.?

Loranthus vegetus DC.?
Phoradendron rubrum Gris.
Spermacoce tenuior Linn.
Borreria parviflora G.Meyer.
Mitracarpium hirtum DC.
Richardsonia scabra St. Hil.
Psychotria cuneifolia DC.
Psychotria alba Ruiz & Pav.
Psychotria laevis DC.
Palicourea costaricensis Benth?
Hamelia patens Jacq.
Calycophyllum candidissimum DC.
Randia monantha Benth
Coccocypselum hirsutum Bartl.
Vernonia canescens H.B.K.
Elephantopus mollis H.B.K.
Distreptus spicatus Cass.
Liabum Brownei Cass.
Liabum platylepis Schultz bip.
Pectis elongata H.B.K.
Pectis longipes Gray
Isocarpha divaricata Benth
Coelestina scabriuscula Benth
Hebeclinium macrophyllum DC.
Eupatorium conyzoides Vahl.
Eupatorium populifolium H.B.K.
Eupatorium paleatum sp. n.
Conyza lyrata H.B.K.
Eclipta erecta Linn.
Mikania tamoides DC.

(6

Salmea scandens DC.
Elvira biflora DC.
Melampodium divaricatum DC.
Melanthera hastata Rich.
Ogiera triplinervis Cass?
Spilanthes uliginosa Sw.
Calea urticifolia DC.
Tridax procumbens Linn.
Egletes viscosa Less.
Neurolaena lobata R.Br.
Gynoxis Cummingii Benth.
Senecio Candelaria Benth
Senecio arborescens Steetz.
Lycoseris latifolia Benth.
Sophoclesia flaccida Seem?
Thibaudia crassifolia Benth.
Thibaudia penduliflora DC.
Gaultheria subrotunda sp.n.
Ardisia compressa Kunth
Jacquinia Caracasana Kunth
Bumelia buxifolia Roem & Schultes?
Bumelia ferox Cham. & Schlecht.
Mitreola petiolata Torr. & Gray.
Rauwolfia heterophylla Roem & Schultes
Tabernaemontana amygdalifolia Jacq.
Tabernaemontana Berterii A. DC?
Odontadenia undulata sp.n.
Asclepias longicornu Benth.
Asclepias subauriculata sp.n.?
Gonolobus hirsutus Mich.

Limnanthemum Humboldtianum Griseb.
Ipomoea bona-nox Linn.
Ipomoea carnea Jacq.
Ipomoea quinquefolia Gris.
Ipomoea fistulosa Mart.
Ipomoea brachypoda Benth.
Ipomoea oocarpa Benth.?
Ipomoea sidaefolia Chois.
Ipomoea umbellata Mig.
Ipomoea trifida Don.
Ipomoea glandulifera sp. n.
Aniseia velutina sp. n.
Loeselia ciliata Linn.
Hydrolea spinosa Linn.
Solanum torvum Sw.
Solanum hirtum Vahl.
Solanum flavescens Dun.
Solanum scabrum Vahl.
Solanum Hernandesii Moç. & Sess.?
Solanum Campechiense Linn.
Cestrum leptanthum DC.?
Cestrum vespertinum L.
Russelia sarmentosa Jacq.
Stemodia parviflora Ait.
Stemodia durantifolia Sw.
Capraria biflora Linn.
Scoparia dulcis Linn.
Utricularia montana Jacq.
Elytraria apargiaefolia Nees.
Nelsonia villosa Oerst

Ebermaiera bracteosa sp. n.
Onychacanthus speciosus Oerst.
Aphragmia Haenkei Nees.
Barleria micans Nees.
Aphelandra pectinata Willd
Henrya scorpioides Nees.
Dicliptera multiflora Juss.
Blechum Linnaei Nees.
Bignonia unguis-cati L.?
Bignonia sarmentosa Bertol.?
Anemopaegma? Bignonia?
Amphilophium paniculatum H.B.K.
Pithecoctenium? Delostoma latifolium?
Tecoma fuscata DC.?
Tecoma Guayacan Seem.
Crescentia alata H.B.K.
Hyptis spicata Poit.
Hyptis pectinata Poit.
Hyptis stellulata Benth.
Hyptis suaveolens Poit.
Hyptis verticillata Jacq.
Salvia occidentalis Sw.
Teucrium inflatum Sw.
Varronia calyptrata DC.
Cordia Gerascanthus Jacq.
Cordia macrocephala H.B.K.?
Cordia Collococca Linn.
Tournefortia hirsutissima Linn.?
Heliotropium inundatum Sw.
Heliophytum Indicum DC.

Stachytarpha dichotoma Vahl.
Lippia geminata H. B. K.
Lippia asperifolia Rich.
Duranta Plumieri Jacq.
Plumbago scandens Linn.
Petiveria alliacea Linn.
Rivina humilis Linn.
Microtea debilis Sw.
Chamissoa altissima Kunth
Sarratia scariosa Moq.
Iresine elatior Rich.
Iresine Havanensis Kunth.
Iresine aurata D. Dietr.
Iresine tereticaulis sp. n.
Telanthera pubiflora Moq.
Gomphrena globosa Linn.
Boerhaavia erecta Linn.
Pisonia inermis Jacq?
Pisonia aculeata Linn?
Polygonum acre H. B. K.
Coccoloba Barbadensis Jacq?
Coccoloba obtusifolia Jacq.
Triplaris Americana Linn?
Camphoromoea Surinamense Meisn.
Daphnidium Veraguense Meisn
Aristolochia grandiflora Sw.
Aristolochia anguicida Jacq.
Glinus lotoides Linn
Euphorbia maculata Linn.
Euphorbia [illegible] Benth.

Euphorbia pilulifera Linn.
Euphorbia hypericifolia Linn.
Euphorbia adiantoides Lam.
Euphorbia Schlechtendalii Boiss?
Dalechampia sidaefolia Kunth
Tragia volubilis Willd.
Garcia nutans Vahl.
Croton lobatus Linn.
Argythamnia scrobiculata sp. n.
Caperonia palustris St. Hil?
Cicca sp.?
Euphorbiacea ♂ only
Euphorbiacea ♀ only
Urera baccifera Gaud.
Ficus sapida Liebm.
Ficus Tecolutense Liebm.
Cecropia obtusa Trécul.
Peperomia sp.?
Peperomia sp.?
Potomorphe peltata Miq.
Artanthe? Schilleria?
Schilleria caudata Kunth.
Schilleria sp.?
Artanthe elongata Miq.
Artanthe Seemanniana Miq.
Artanthe tuberculata Miq.
the oblonga Miq?
Hedyosmum Bonplandianum Kunth?
Caulinia fragilis Roxb.
Tristichia hypnoides Spreng

Lemna polyrhiza Linn.
Limnonensis Friedrichstaliana Klotzch.
Anthurium Hookeri Kunth.
Monstera pertusa Linn.
Thalia geniculata Willd.
Hypoxis erecta Linn.
Tillandsia usneoides Linn.
Tillandsia brachycaulos Schlecht.
Tillandsia Schiediana Steud.
Catopsis nitida Griseb.
Pontederia falcitoba sp. n.
Commelyna agraria Kunth.
Cyperus compressus Linn.
Cyperus Surinamensis Rottb.
Cyperus strigosus Linn.
Cyperus articulatus Linn.
Fimbristylis Vahlii Link
Cyperus lasiocephalus sp.n.
Paspalum conjugatum Bergh.
Paspalum complanatum Nees.
Hymenachne Myurus P. de B.
Panicum fimbriatum Kunth
Panicum hirtum Lam?
Panicum pilosum Sz.
Ischaemum latifolium Kunth
Eragrostis ciliaris Linn.
Eragrostis reptans Mich
Lycopodium Carolinianum Linn.
Lycopodium clavatum Linn.
Lycopodium cernuum Linn.

Lycopodium selago L.?
Lycopodium [illegible] Lam.
Selaginella sp.?
Marsilea villosa Kaulf.
Chara sp.?
Salvinia auriculata Aubl.?
Chrysodium alienum Mett. (Gymnopteris aliena
Lomaria attenuata Willd (Lom. Mundensis)
Monogramme rostrata Hook. (Pleurogramme linearis)
Polypodium serrulatum Mett. (Xiphopteris serrulata
Vittaria lineata Sw.
Adiantum villosum Linn
Adiantum trapeziforme Linn.
Asplenium formosum Willd,
Gymnogramme [illegible] Desv. (Gymn. [illegible])
Gymnogramme calomelanos Kaulf.
" " var segmentis divisis
Hemionitis palmata Linn.
Polypodium trichomanoides Sw.
Polypodium lycopodioides Linn. (Pleopeltis lycopodioides)
Polypodium salicifolium Willd (Pleopeltis salicifolia)
Polypodium percursum Cav. (Pleopeltis percursa)
Polypodium elongatum Mett (Pleopeltis sp. Ondepec)
Polypodium loriceum Linn. (Goniophlebium glaucorhizon)
Polypodium incanum Sw. (Goniophlebium incanum)
Polypodium Phyllitidis Linn. (Campyloneuron repens)
Polypodium crassifolium Linn. (Phymatodes crassifolia)
Phegopteris pteroides Mett.?
Aspidium semicordatum Sw. (Cyclopeltis semicordata)

Nephrolepis tuberosa Pr. (Nephrolepis pectinata)

[illegible] Kaulf.

Hymenophyllum — sp.? [illegible]

Trichomanes rigidum Sw.

Lygodium venustum Sw.

(11)

Anonaceæ.

Uvaria

Ometepec Island in Lake Nicaragua.
Flowers only were obtained from the trunk of a small irregularly branching tree in thick woods near the lake. They grow in clusters from large nodose excrescences changing from greenish to brownish red & dark reddish brown

[illegible] 2-3 inches long [illegible] the base [illegible]

Island of Ometepec in Lake Nicaragua. A slender spreading [illegible] 6-12 feet high [illegible] purplish [illegible] dark purple [illegible]

Menispermaceæ.

Cissampelos Pareira, Linn.; DC. Prod. 1, 100; Seem. Bot. Herald, 76; Griseb. Pl. Carib. 15.

Ometepec, in woods. Fruit red.

c. Nicaragua

Capparidaceae.

~~Colicodendron amygdalinum~~. Capparis amygdalina, Lam.; DC. Prodr. 1, 250; Griseb. l.c. 16; ~~Jacq~~ C. Breynia, Jacq. Am. t. 103 ex Griseb.
A large spreading bush. Flowers white. Except that the leaves are obtuse at the base the specimens which are only in flower agree quite well with the descriptions & figures above quoted

Capparis frondosa, Jacq. Pl. Am. 162, t. 104; DC. Prodr. 1, 247; Griseb. l.c.
A slender bush 2–10 feet high. Flowers greenish. Leaves exceedingly variable in form.

Capparis

of a dull purplish color
Flowers of a Crataeva, were found on Cruztepec,
~~tree with the~~ It is a large bush 8–12 feet, but was destitute of leaves.
~~and were~~ e

(4)

Bixaceæ.

Bixa Orellana, Linn.; DC. Prodr. 1, 259; Seem. l.c. 79; Griseb. l.c. 17.
Omotepéc.

(5)

Cistaceæ.

Cochlospermum hibiscoides, Humb. & Kunth; Seem. l.c. 77.

A medium sized tree, 20-40 feet high, with a spreading top. Flowers yellow.

(6)

Polygalaceae.

Polygala paniculata, Linn.; DC. Prodr. 1, 329; Seem. l.c. 80.
Greytown. Flowers purple.

~~Securidaca sylvestris, Schlecht. in Linnaea, 14, 381; Walp. Rep. 1, 246.~~
~~Climbing over trees to the height of 20–40 feet. Fl. rose-color or pink.~~

[illegible] Linn. Sp. [illegible]; Jacq. [illegible]
[illegible]; DC. Prodr. [illegible]
[illegible]

(7)

Malvaceæ.

Malvaviscus grandiflorus, H.B.K.; DC. Prodr. 1, 445.

Sida acuta, Burm.; DC. Prodr. 1, 461; Seem. l.c. 82.

Sida rhombifolia, Linn.; DC. l.c. 462; Seem. l.c.

[illegible] H.t.1.f.10. et 6.T.194.f.1. [illegible] DC. l.c. [illegible]

Kosteletzkya ~~cordata~~, ~~Presl~~, ~~Rel. Haenk. 2, 132~~; Walp. Rep. 1, 302.

(Before Malvaviscus) Malvastrum spicatum, Gray, Pl. Fendl. 22; Griseb. l.c. 28

[illegible] Kosteletzkya [illegible] [illegible] foliis ~~inferioribus~~ caulinis [illegible] ramealibus minoribus hastatis; [illegible] supra pube stellata [illegible]

[illegible]

Sterculiaceæ.

Pachira aquatica, Aublet; Seem. l.c. 83; Griseb. l.c. 32.

A small tree growing by the ~~water~~ margin of the lake. Flowers light greenish turning to brown.

Sterculia Carthaginensis, Cav.; Seem. l.c. 84; Sterculia Helicteres, Pers.; DC. l.c. 483.

A tree 40 feet high growing by the edge of the lake. Flowers purplish-green & mottled.

Helicteres guazumaefolia, H. B. & K.; DC. l.c. 476; Benth. Bot. Voy. Sulph. 71.

(9)

Byttneriaceæ.

[illegible]

Guazuma ~~polybotrya~~, Cav.; DC. Prodr. 1. 485. DC. l.c. p. 485. Gris. Fl. B. W. I. [illegible]

Walthería Americana, Linn.; DC. l.c. 492; Seem. l.c. 85.

Melochia nodiflora, Sw. Fl. Ind. Occ. 1137; Seem. l.c. Riedleia nodiflora, DC. l.c. 491.

(10)

Tiliaceae

Corchorus aestuans, Linn?; DC. l.c. 504; Pluk. t. 127, f. 3?

Leaves without setose lower teeth. Pod 3-valved. Style long.

Triumfetta Lappula, Linn.; DC. l.c. 506;

Note. Luhea platypetala Rich? [illegible] 23 [illegible]

[illegible]

[illegible] in this latter [illegible]

[illegible]

1, 353;

514;

Onotepec. A small tree on the banks of the lake. Flowers white.

Tiliaceae

Corchorus aestuans, Linn?; DC. l.c. 504; Pluk. t. 127, f. 3?

Leaves without setose lower teeth. Pod. 3-valved. Style long.

Triumfetta Lappula, Linn.; DC. l.c. 506; l.c. 86.

Luhea rufescens, St. Hil.; Walp. Rep. 1, 353; n. l.c.; Benth. Bot. Voy. Sulph. 72.

A large tree 40–60 feet high.

Muntingia Calabura, Linn.; DC. l.c. 514; l.c. 87.

Ometepec. A small tree on the banks of the lake. Flowers white.

Ternstroemiaceæ.

Freziera undulata, Sw. Fl. Ind. Occ. 974; DC. Prodr. 1, 524; Griseb. l. c. 37.

Omotepec at the summit of the mountain an extinct volcano. A spreading bush 6-12 feet high. Flowers white. The stamens (about 20) are on the dilated base of the two inner petals in a single series

(12)

Clusiaceæ.

Clusia ~~rosea~~, venosa Jacq.? ~~Linn.~~; DC. Prodr. 1, 558; ~~Seem. l.c. 88;~~ Griseb. ~~l.c. 35,~~ Fl. Brit. W. I. p. 1[illegible]

Summit of Crostepec. A large spreading bush, 6–10 feet high. The specimens in fr. agree with the specimen in [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

(13)

Hippocrateaceæ.

Hippocratea [illegible] [illegible]

[illegible]

[illegible] [illegible] 2-3 [illegible] [illegible] puberulent cymes [illegible] 1-2 lines [illegible] ~~much shorter~~ 3/4-1 [illegible] [illegible] 1/2 inch long, distinct [illegible] [illegible] 1/4 in. in length [illegible] 3/8 in. broad in the widest part [illegible]

[illegible]

Malpighiaceæ.

Byrsonima Cumingiana, A. Juss. Malp. 28; Walp. Rep. 5, 161; Seem. l.c. 71.
Omotepec. A low spreading tree 10-20 feet high.

Stigmaphyllon Lindenianum. A. Juss. l.c. 108; Walp. Rep. 5, 207.
Climbing over bushes. Flowers yellow.
A specimen [illegible] by Fendler [illegible] in Herb. [illegible]
~~Stigmaphyllon?~~ [illegible]
Appears to be the same plant

No. 4 Banisteria?
Omotepec. Scandent to the height of 20 [illegible] feet
[illegible] March

(15)

Sapindaceæ.

Urvillea Berteriana, DC. Prodr. 1, 602.
Ometepec in woods. Scandent. Flowers white

No 7 Serjania
Ometepec climbing to the height of ten
more feet. Fl. white

inea

feet

often

Serjania paucidentata, DC. Prodr. 1, 603; Seem. l.c. ~~92~~.
Climbing to the height of 10 feet or more. Flowers white. Ometepec

Serjania velutina, Camb.; Walp. Rep. 1, 412; Seem. l.c.
Ometepec. Climbing over bushes. Flowers white.

Paullinia ~~pubescens~~ fuscescens, H. B. & K.? P. pubescens ? DC. Prodr. 1, 606? sphaerocarpa? Seem. Bot. Her. 274?
Flowers white. Climbing over bushes. The leaves are mostly ~~very obtusely~~ acuminate but very obtuse & mucronulate at the point in this respect, not strictly agreeing with any description. The terminal leaf is

more or less shoulder. (16) ~~The specimens are only in flower.~~ [illegible]
Dr. Herb. Spruce No 177 seems is the same plant

Thouinia? decandra [illegible] H. B. K. [illegible]
[illegible]

A small tree [illegible] 40 ft high spreading branches
Feb.

Cupania glabra, Sw. Fl. Ind. Occ. 659; DC. Prodr. 1, 613.

Omotepec. A large tree 40–50 feet high.

~~Hypelate~~

[illegible]

Omotepec. [illegible]
[illegible]

(17)

Meliaceae.

Trichilia trifoliata, Linn.; DC. Prodr. 1, 623; Jacq. Amer. 189, t. 82.
Ometepec. A spreading bush 5-10 feet high

Trichilia Havanensis, Jacq. Amer. 129, t. 175, f. 38; DC. Prodr. 1, 622; Seem. l.c. 93.
Ometepec. Margin of the lake. A large bush. Flowers greenish.

Trichilia [illegible] H. B. K. [illegible] p. 123? [illegible]

Ometepec. A large bush. Fl. whitish. The scanty specimens being only in flower it is impossible without means of comparison to say to what described species it belongs [illegible] & may be new. It accords with the description in [illegible]. Can it be Trichilia (Pholacilia Gris) Trinitensis?

Trichilia spondioides. Sw? DC. Prodr. 1, 622? Seem. l.c.?
Ometepec. A small erect tree 20 feet high or more. Flowers light yellowish. The leaves came by some mistake in the same cover with Cochlospermum so that it may be doubted whether they belong to the flowers to which they are referred. They accord quite well with the figure in Sloane (210) & with the descriptions.

Meliaceae.

Trichilia trifoliata, Linn.; DC. Prodr. 1, 623; Jacq. Amer. 189, t. 82.

Omotepec. A spreading bush 5-10 feet high

Trichilia Havanensis, Jacq. Amer. 129, t. 175,

[redacted]

Prodr. 1, 623.

Omotepec. A bush 10 feet high or more Flowers whitish. The filaments at least in the bud are quite free through they appear feebly ~~attached~~ adherent in the expanded flowers.

Trichilia spondioides. Sw.? DC. Prodr. 1, 622? Seem. l.c.?

Omotepec. A small erect tree 20 feet high or more. Flowers light yellowish. The leaves came by some mistake in the same cover with Cochlospermum so that it may be doubted whether they belong to the flowers to which they are referred. They accord quite well with the figure in Sloane (210) & with the descriptions.

(17)+

Guarea G. grandifolia aff. sed folia minora obtusissima vix acuminata 1–3 juga

[illegible] bis [illegible] ~~[illegible]~~
dentatus. Petala [illegible] lanceolata
~~[illegible]~~ [illegible] [illegible]
[illegible]
[illegible]
Guarea grandifolia aff. sed fol.
minora!

Vitaceæ.

Cissus (ovata, Lam.) sycioides, Linn.; DC. Prodr. 1, 628; Griseb. l. c. 34.
Climbing as high as 10 ~~or~~ 20 feet over trees. Flowers greenish.

Spondylantha aphylla, Presl. Rel. Haenk. 2, 35.
In large entangled bunches pendulous from vines by the lake shore. Anamorphosis of a species of Cissus.

Oxalidaceæ.

Oxalis hedysaroides, H.B.K.; DC. Prodr. 1, 691; Seem. l.c. 94; Zucc. Oxal. 84;
In crevices of rocks near the lake. Flowers yellow

Simarubaceæ.

Simaruba glauca, DC. Prodr. 1, 733; Seem. l.c. 97.

Ometepec. Margin of prairies. A tree 20–40 feet high. Flowers greenish.

Quassia amara, Linn. f.; DC. Prodr. 1, 733; Seem. l.c. 95.

Subscandent — 20 feet high or more. Flowers scarlet.

(21)

Ochnaceæ.

Gomphia [illegible]. B. Fl. ind. occ. 2. 759. [illegible]
1. 737.
A large bush 8-12 ft high, [illegible] fl. yellow. Campo

(22)

Flacourtiaceæ.

Casearia parviflora Willd. Sp. Pl. 2. 627; DC. Prodr. 2. 49; Seem. l.c. 98.

A small branching bush. Flowers yellowish green.

Casearia (§ Anavinga) [illegible] H. B. K. [illegible] Prodr. 2. p. 49; Seem. Bot. Her. p. 98

A small [illegible] ft high. Fl. white [illegible], in [illegible]

Xylosma (= Hisingera) nitidum A. Gray, Gen. Pl. ~~[illegible]~~ [illegible] p. 21. Hisingera nitida Hell. [illegible] 4. p. 183.

A bush 8–12 ft. high. Berries dark purple. [illegible]

(23)

Anacardiaceæ.

Spondias purpurea, Linn.; DC. Prodr. 2, 75; Seem. l.c. 106.
Omotepec. A medium sized tree. Flowers dark crimson.

Mangifera Indica, Linn.
Omotepec.

Leguminosæ.

Indigofera Anil, Linn.; DC. Prodr. 2, 225; Seem. Bot. Herald, 107; Benth. Bot. Sulph. 80; Griseb. l. c. 50

Tephrosia decumbens, Benth. in Copenhagen Transactions, 1853, p. 7; Walp. Ann. 4, 490.
Ometepec in small prairies. Stems prostrate. Flowers purple.

Aeschynomene ~~hispida~~ [illegible] H. B. K. Nov. Gen. 6, p. ~~Willd.? DC. Prodr. 2, 321?~~
Ometepec in wet ground at the side of pond. Quite smooth in all its parts except the petiole which is glandular on the upper side. 4-8 ft high. Erect, spreading, annual. Fl. yellow

Zornia diphylla, Pers.; Griseb. l. c. 53
Ometepec, in prairies.

Desmodium cinereum, DC. Prodr. 2, 330; Hook. & Arn. Bot. Beechey, 287.
Ometepec. Flowers purple.

Desmodium scorpiurus, Desv.; DC. Prodr. 2, 333; Benth. Bot. Voy. Sulph. 82.
Ometepec. in prairies. Flowers purple.

Desmodium triflorum, DC. Prodr. 2, 334; Benth. l.c.

In crevices of rocks. Flowers purple.

Glycine botrydium, Walp. Rep. 1, 760?

Centrosema Salzmanni, Benth.; Walp. Rep. 1, 755; Seem. ~~Bot. Herald~~ l.c. 108

Banner of the flower on the outside greenish red, lighter red on the inside with a deeper spot in the centre. Keel & wings of the same color — the latter & the calyx clothed with uncinate glandular hairs by which they adhere to clothing

Stenolobium caeruleum, Benth. Walp. Rep. 1, 759; Seem l.c. 109.

Scandent. Flowers purple.

Mucuna elliptica, DC? Prodr. 2, 405?

Ometepec on the margin of the lake, scandent. The leaves in form & venation are quite like those of Dioclea.

Erythrina glauca, Willd.; DC. Prodr. 2, 413.

A spreading tree 15-30 feet high. Flowers reddish orange.

(26)

Erythrina corallodendron, Linn.; DC. Prodr. 2, 411; Griseb. l.c. 57.
A low spreading tree.

Phaseolus lunatus, Linn.; DC. l.c. 393; Seem. l.c. 109.
Old fields & woods. Flowers purple.

Phaseolus Truxillensis. H.B.K.; DC. l.c. 391; Benth. Bot. Voy. Sulph. 85.
Scandent. Flowers white—wings & banner tinged with purple on the outside.

~~Phaseolus~~ Centrosema pubescens l.c. 12?
[illegible] climbing on bushes Fl. purple Ometepec

~~Pachyrhizus~~ Canavallia pedicula. DC. Prodr. 2, 404
Seem. l.c. 109. Gris. Fl. B.W.I. 197
Climbing over bushes. Fl. purple Ometepec

Rhynchosia precatoria, DC. l.c. 385; Seem. l.c. 110.
Ometepec. In cultivated grounds.

Rhynchosia minima, DC. l.c. ~~385~~; Benth. Bot. Voy. Sulph. 87; Griseb. l.c. 58.
Creeping over bushes. Flowers yellow.

(27)

Lonchocarpus sericeus H.B.K.?
A spreading tree 10-40 feet high. Banner light, wings & keel above the claws deep red. The odd stamen separates from the others without laceration. The leaves are very closely pellucido-punctate.

Gliricidia maculata, Kunth; Seem. l.c. 111. Lonchocarpus maculatus, DC. l.c. 265.
A small spreading tree 20 feet high. Flowers light reddish purple. Banner with an oblong light yellow spot in the middle. This agrees in some respects with the description of L. sepium & L. maculata. The leaflets are rarely more than 15 commonly fewer; they are acuminate & sometimes acute quite smooth on the upper side & the calyx also is smooth.

Sesbania macrocarpa, Muhl.; Seem. l.c. 108; DC. l.c. 265.
Ometepec

Cassia Brasiliana, Lam.; DC. l.c. 489; Vogel, Syn. Gen. Cass. 11; Seem. l.c. 112; Benth. Bot. Voy. Sulph. 88. = C. grandis Linn. fil. Griseb. Fl. B.W.I. p. 205;
Ometepec. A large tree. Flowers light red becoming yellow, Legume cylindric 1-2 feet long.—seeds transverse

Cassia reticulata Willd. enum. 443. DC. [illegible]
[illegible] 497; Griseb. Bonplandia 1854 p. 4
A spreading bush 4-6 ft high. Fl. orange. Guadeloupe

Trichilia [illegible] 6 Jun. [illegible]

(28)

Cassia bicapsularis, Linn.; Vogel l.c. 18; DC. l.c. 494; Seem. l.c. 112; Benth. l.c. 88.

Cassia biflora, Linn.; Vogel, l.c. 29 & Linnaea, 11, 676; Benth. l.c. ~~88~~
Suffruticose 4-8 feet high. Each joint of the pod has in relief a distinct figure of an X.

Cassia lotoides, H.B.K.; Vogel, l.c. 50; Walp. Rep. 1, 829.
Cundeper, in small prairies

Cassia arborescens, Mill? DC. l.c. 505?
A small wide spreading tree or large bush. Fl. yellow. The specimens are imperfect having good fruit & flowers with a few unexpanded leaves.

Casparea porrecta, Kunth; Bauhinia porrecta, Sw.; DC. Prodr. 2, 513.
A spreading bush 6-10 feet high. This has only one fertile stamen but it has not the stigma ascribed to Casparea for it is distinctly capitate ~~and~~ on the very summit of the style.

Bauhinia inermis, Pers.; DC. l.c. 514; Seem. l.c. 113; Benth. l.c. 89.
A bush 4-8 feet high. Calyx veined with purple. Cor. white.

Inga spuria Willd. Sp. Pl. 4, 2011; Benth. ~~Lond.~~ Hook. Journ. Bot. 4, 615.

Ometepec. A large tree growing on the margin of the lake. Our specimens accord with the description in Willd. & with Bentham except in wanting the rufous pubescence & in having ovate not linear bracts. None of the leaflets are 3 inches long.

Mimosa asperata Linn.; Benth. l.c. 400; Seem. l.c. 114; DC. l.c. 428.

A small bush in low grounds.

Schrankia leptocarpa, DC. Prodr. 2, 443.
Hab. climbing on bushes to the height of 4-8 feet.

Acacia Farnesiana, Willd; Seem. l.c. 114.

Acacia spadicigera, Cham. & Schlecht. Linnaea, 5, 594; Benth. l.c. 504.

Our specimens differ from the original description in the number of the pinnae which vary from 3-10; in the position of the bracts of the peduncle. The bracts of the spadix also are peltate & orbicular not obovate & acuminate.

(30)

Lysiloma Schiedeana, Benth. ~~l.c.~~
Lond. Journ. Bot. 3. 83? Walp. Rep. 5, 594?

Omoltepec. A large spreading tree. Flowers greenish white. The specimen, being in flower only must remain doubtfully [illegible]

Pithecolobium dulce, Benth. l.c. 199.
Inga dulcis, Willd. Sp. Pl. 4. 1005. DC. l.c. p.436

A large spreading bush. 10–20 feet high.

Pithecolobium glomeratum, Benth? l.c. 213?
Seem. l.c. Inga glomerata DC l.c. 2. p. 438

The leaflets, even the terminal ones are not quite 2 inches long. The exserted part of the stamineal tube is fully as long as the inclosed portion. Thrifty branches have 2 pairs of pinnae.

~~Pithecolobium salutare, Benth. l.c. 216?~~
~~Walp. Rep. 5, 618?~~

~~Omoltepec. A tree 20–40 feet high. Corolla ed below; segments yellowish; filaments white below d above~~

Calliandra [illegible] Fl. Per. [illegible] Inga [illegible]
Willd. Sp. Pl. 4. p.1024: DC. Prod. 2. p. 441: Benth. l.c.
Omoltepec. A tree 20–40 feet high. Corolla red below; segments
yellowish. Filaments white below red above

Connaraceæ.

Rourea frutescens, Aubl.; Walp. Ann. 2, 295. Connarus pubescens, DC. Prodr. 2, 85.

Ometepec. A bush 10-12 feet high. In fruit.

glabra Kunth R. oblongifolia
Rourea ~~oblongifolia~~, Hook. & Arn. Bot. Beechey 283; Walp. ~~Ra~~ Ann. 2, 295. Connarus glaber DC. Prodr. 2, p. 85

Ometepec. A bush 10-20 feet high. In fruit.

Connarus alatus sp. n.

A spreading tree 40-50 ft high. The common petiole below the pair of leaflets especially the upper ones has a short [illegible] dilated upwards

Combretaceae.

Combretum farinosum, H. B. K.; DC. Prod. 3. 17; Seem. l.c. 119.

Between San Juan del Sur & Virgin Bay, a tree 40 feet high.

Combretum Mexicanum, H. B. K.; DC. l.c.; Benth. Bot. Voy. Sulph. 72.

Omotepec. Margin of the Lake. A large straggling bush 10 20 feet high. Flowers yellowish-white.

Onagraceae.

Jussiaea ~~angustifolia~~ acuminata Sw, ~~Lam.~~; DC. Prodr. 3, 54;
~~Seem. l.c. 120.~~ Gris. Fl. B. W. I. p. 72
Margin of rivulets; 6 feet high.

Jussiaea ligustrifolia, H. B. K.? DC. Prodr. 3, 56?
Benth. Pl. Hartw. No. 9. = J. suffruticosa var. L. γ. Griseb. l.c. p. 72
Uncommon beside springs on the shore of the lake. The lobes of the epigynous disk are covered with a dense white tomentum & are somewhat flattened cordate or reniform in shape. Our specimens are the same as those of Hartweg published by Bentham, with a mark of doubt, under the above name.

= J. suffruticosa
Jussiaea octofila, DC. Prodr. 3, 57; Seem. l.c.; Benth. Bot. Voy. Sulph. 92; Grisb. l.c. 72.

Lythraceæ.

Ammannia humilis, Michx.; DC. Prodr. 3, 79.
Beside rivulets

Melastomaceæ.

Oreocosmus Naudinianus, Naud. in Ann. Sc. Nat. 3d Ser. 13, 39.

Ometepec. Mountain-side - edge of thickets. Flowers white. Suffruticose 1-3 feet high.

Mono-chætum triplinerve, Naud. l.c. 14, 163.

Ometepec, summit & side, of mountain. Shrubby 2-6 feet high. Flowers purple.

Miconia microbotrya, Naud. l.c. 16, 195.

Ometepec. summit of the mountain, a widely branching bush 4-10 feet high. Flowers white.

Myrtaceae

Psidium Guajava, Raddi; Seem. l.c.
125. P. pomiferum & pyriferum, DC. & Auct.
Petals with black not pellucid dots.

Halorageæ.

Gunnera ~~scabra~~ Chilensis, Lam.; Walp. Rep. 2, 100; J. D. Hook. Fl. Ant. 2, 273.

Ometepec—mountain sides. On banks of ravine. Stem thickly beset with rather soft tubercular aculei, 2–3 inches in diameter toward the root bearing at the top few (3–5) leaves about 4 feet wide & 1–3 racemes or panicles of flowers 2 feet in length

Cucurbitaceae.

Melothria pendula, Linn.; DC. Prodr. 3, 313.

Ometepec. Fl. yellow

Sicydium Schiedeanum, Schlecht. Linnaea, 7, 388; Walp. Rep. 5, 759.

Ometepec. The flowers are all staminate and the leaves are rather smaller than they are represented to be in the original description. The ~~anthers~~ stamens moreover are only 2½ not 3 as they are perhaps by oversight described

Begoniaceae.

Begonia [illegible]

Passifloraceæ.

Passiflora foetida, ~~Linn.~~ Cav.; DC. Prodr. 3, 331; Seemann 130.
Omotepec

Turneraceae.

Turnera ulmifolia, *Linn.*; *DC. Prodr. 3, 346*; *Seem. l.c.*
Ometepec in open prairies. Fl. yellow

(2.)

Umbelliferae.

Hydrocotyle ~~[illegible]~~ ranunculoides, Linn. f. Suppl. 177. DC. Prodr. 4, p. 65

Eryngium foetidum, Linn.; DC. Prodr. 4, 60; Seem. l.c. 131.
Ovalau, in swamps.

12

Cactaceae.

Opuntia

Cereus

Araliaceae

Aralia

Movements were [illegible] to appear to be a permanent [illegible] — bending [illegible] the [illegible] when the [illegible] of flowers, [illegible] [illegible] probably [illegible] [illegible] nothing [illegible] [illegible] from the flowers [illegible] [illegible] the expansion of the pani-cles of the latter

Loranthaceae.

Loranthus ægyptus, DC. Prodr. 4, 313?
Climbing to the height of 10–40 feet over trees. Flowers greenish yellow. Parasitism was not observed.

Phoradendron rubrum Gris. Fl. B. W. I. p. 314.
Viscum Haenkeanum, DC. Prodr. 4, 283? Benth. Bot. Sulph. 102?; Seem. Bot. Herald, 132?
The leaves are narrower than they are said to be in the description – less than half an inch wide

Rubiaceæ (A. Gray).

Spermacoce tenuior, Linn.; DC. Prodr. 4. p. 552. — Crevices of rocks near the Lake! — A glabrous and small-fruited form, which we have also from Key West: probably S. laevis, Lam.

Borreria parviflora, Meyer; DC. Prodr. 4. p. 544. With the preceding.

Mitracarpium hirtum, DC. Prodr. 4. p. 572. Omotepee, by road-sides. Part Scabrous rather than pubescent-hirsute. M villosum, (Spermacoce hirta, Jacq. is probably not distinct.

Richardsonia scabra, St. Hil. In sand! common.

Psychotria cuneifolia, DC. Prodr. 4. p. 507, fide Griseb. Ometepec, in woods. A spreading bush, with white flowers. The specimens accord with those gathered at Panama by Duchassing and named as above by Grisebach, who appears to ~~have~~ have seen the Candollian plant; they agree with De Candolle's brief character, except that the stipules are by no means very small, but they fall early. To this species Grisebach refers Bentham's P. Nicaraguensis; but ~~there is no appear~~ the margins of ~~the~~ the young leaves are not at all "cartilagineo-setulosis"; there are fewer than twelve pairs of veins, the flowers are mostly sessile, and the drupes are almost 3 lines ~~long~~ in length.

Psychotria alba, Ruiz & Pav.; DC. l. c.; Benth. Bot. Centr.-Amer. p. 12? 2 var stipulis aristato-acuminatis Santa Rosa, Ometepec.

Apparently only a form of P. alba, but a remarkable one, on account of the stipules. These are from 3 to 5 lines long and conspicuously biaristate-acuminate. Fruit not seen. The flowers are noted as yellowish-white.

Psychotria lævis, DC. Prodr. 4, p. 505; Benth. l. c. p. 15. Ometepec.

Palicourea Costaricensis, Benth. l. c.? Ometepec. Berries blue. Flowers not seen. Stipules setaceous, longer than the sheath. Leaves only 2 or 3 inches long. The materials are not sufficient for complete determination. ~~It~~ They ~~seem~~ would better accord with P. lanceolata, Œrsted, (Benth. l. c.) except for the size of the leaves.

Hamelia patens, Jacq.; DC. Prodr. 4. p. 441. Ometepec.

Calycophyllum candidissimum, DC. Prodr. 4, p. 367. Santa Rosa, Ometepec. (In fruit.)

Randia monantha, Benth. Pl. Hartw. p. 81, & Rub. Orst. l. c. Ometepec.

Coccocypselum hirsutum, Bartl. DC. Prodr. 4, 396; Benth. Rub. Oerst. l. c. 29. Ometepec, on open prairies & in the edge of thickets. Flowers & fruit blue.

Compositæ.

Vernonia canescens, H. B. K.; DC. Prodr. 5, 40; Benth. Pl. Oerst. 3; Seem. in Bot. Herald, 139. Omotepec, in prairies. Flowers purple.

Elephantopus mollis, H. B. K.; DC. l. c. 86; Seem. l. c. 141. San Juan del Sur. Flowers white.

Distreptus spicatus, Cass.; DC. l. c. 87; Benth. l. c. & Bot. Voy. Sulph. 110. Between Virgin Bay & San Juan del Sur.

Liabum Brownei, Cass.; DC. l. c. 97. Omotepec, sides of ravines.

Our plants differ from a Jamaica specimen in much smaller auricles at the insertion of the petiole. The style is bulbous at the base; the rays short & narrow.

Liabum platylepis, Schultz, Bip. ined. Sides of Mountain, Omotepec. In ravines; ~~[illegible]~~ subscandent, 6–15 feet high.

Pectis elongata, H. B. K.; DC. l. c. ~~112~~; 99; Seem. l. c. 142. In low grounds 2-3 feet high.

Pectis longipes, Gray, Pl. Wright. pt. 2, p. 49. Omotepec in prairies.

Isocarpha divaricata, Benth. ~~Bth.~~ l. c.

Coelestina scabriuscula, Benth. Pl. Oersted. Comp. p. 8. Omotepec, in prairies on hillsides.

Hebeclinium macrophyllum, DC. l. c. 136; Steetz, l. c. 143. Omotepec, by roadsides.

Brickellia diffusa, Gray, Pl. Wright. 86. Bulbostylis diffusa DC. Prodr. 7, 268. Eupatorium diffusum Vahl.; DC. Prodr. 5, 174. Omotepec in woods & open grounds.

Eupatorium conyzoides, Vahl.; DC. l. c. 143; Steetz, l. c. 144; Benth. Bot. Voy. Sulph. 112. Near San Juan del Sur.

Eupatorium populifolium, H. B. K.; DC. l. c. 155. E. critonoides Steetz, l. c.? Ascending, by means of bushes to the heights of 4-10 feet.

The close agreement of our specimens with Steetz description of E. critonoides, leads to the belief that he had before him the same plant with upper leaves only. The achenia in our specimens are pubescent on the faces towards the top.

Eupatorium ? paleatum sp. n.

[illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] 6-10 flowers). [illegible] [illegible] [illegible] 54 [illegible] [illegible] [illegible].

Conyza lyrata, H. B. K.; DC. l. c. 380; Steetz, l. c. 151.

Eclipta erecta, Linn.; DC. l. c. 493; Steetz, l. c. 152. In marshy ground. Flowers white.

Mikania tamoides, DC. l. c. 197; Benth. Bl. Oerst. 16. Between Virgin Bay & San Juan del Sur. Climbing over bushes. Flowers white.

Salmea scandens, DC. l. c. 493; Benth. l. c. 20; Steetz. l. c. ~~Betw~~ With the last.

(Elvira [illegible]

Melampodium divaricatum, DC. l. c. 520; Benth. l. c. 22.

Melanthera hastata, Rich. DC. l. c. 545; Benth. l. c. 24; Steetz (Melananthera) l. c. 156. Between Virgin Bay & San Juan del Sur.

Ogiera triplinervis, Cass.?; DC. l.c. 546? Ometepec; prostrate. Flowers yellow.
The leaves are sprinkled on the under surface with resinous dots, but no glands are visible. The achenia seem to be imperfect although the flowers have apparently good stamens & styles.

Spilanthes uliginosa, Sw.; DC. l.c. 624; Steetz. l.c. 159. Ometepec, on the summit of the mountain an extinct volcano containing a pool of water ~~at~~ by the margin of which the (apparently dwarf) plants grew.

Calea urticifolia, DC. l.c. 674. Ometepec in prairies or hillsides

Tridax procumbens, Linn.; DC. l.c. 679; Steetz. l.c. 161; Benth. l.c. 39. Roadsides

Egletes viscosa, Less.; DC. Prodr. 6, 42; Benth. l.c. 39. Ometepec, in wet grounds

Neurolaena lobata, R. Br.; DC. l.c. 292; Benth. l.c. 42; Steetz. l.c. Between Virgin Bay & San Juan del Sur. Flowers white.

Gymnoxis Cummingii, Benth. l. c. 42
Ocotepec, climbing to the height of 10-15 feet.

[illegible] p. 322

Senecio [illegible] [illegible] Pl. [illegible] 1857. p. [illegible]
[illegible]
[illegible]), Rays 3 short, Branches of the corymb [illegible]
[illegible]. The parts quite smooth.
[illegible] 3-6 feet high. Fl. yellow

Senecio arborescens, Steetz, l. c. 162, t. 31. ~~Our specimens~~ Ocotepec, on shady mountain sides, 4-8 feet high but almost or quite herbaceous

Our specimens have the corymb on a peduncle about its own length (2--3 inches). The capitula are 11-12-flowered & but little longer than the involucre — at least not twice as long.

Lycoseris latifolia, Benth. Bot. Voy. Sulph. 121; Steetz, l. c. 163. Diazeuxis latifolia, Don! DC. Prodr. 7. 22. Plants 6-20 feet high ascending among bushes.

The specimens are female: the setae of the pappus are more than 100 & in several series.

(per Salmon)

Elvira biflora, DC. Prodr. 5. 503; Benth. in Oerst. Comp. Centroam. 21. Banks of rivulets.

Ericaceæ

Sophoclesia flaccida, Seem. l.c. 164?
Ometepec.

Specimens few & in fruit. The calyx is 4-toothed & pubescent. Branches puberulous.

Thibaudia crassifolia, Benth. Pl. Hartw. p. 65; Walp. Rep. 2, 123. Plylaea crassifolia Klotzsch, Walp. Ann. 2, 1086. Ometepec, on mountain sides. A bush 6–12 feet high. Flowers crimson shading to almost white at the margin.

~~Gaultheria~~ Thibaudia penduliflora, DC. Prod. 7, 562. Summit & sides of Ometepec. A bush 6–12 feet high. Flowers & bracts pink.

Gaultheria ? olmeda Seem.

Ramulis sparse glanduloso-pilosis, foliis [illegible] basi subcordatis superne [illegible] ~~[illegible]~~ glandula terminali cuticulatis subtus nervosis ~~racemis~~ racemi terminalibus, ~~puberulis~~ ~~bracteis~~ [illegible] pedicellis corollaque puberulis, bracteis calyceque [illegible] ciliatis. G. nitidæ Benth aff.? G. coccineæ H.B.K. aff.?

Ometepec, (summit) a bush 1 to 2 [illegible]. Fl. pink

Myrsinaceae.

Ardisia compressa, Kunth; A. DC. Prod. 8, 125; Seem. l.c. 165. Ometepec in woods. A small spreading tree 8–20 feet high. Flowers white.

Jacquinia Caracasana, Kunth; A. DC. l.c. 150. A bush 8–13 feet high. Flowers deep reddish-orange.

Sapotaceae.

Bumelia buxifolia, Roem. & Schultes? A. DC. l.c. 191? A bush 10 feet or more in height.

The leaves of our plant are more or less pubescent on both sides, and they are obtuse at the base & often emarginate at the apex, otherwise rounded. The corolla is about twice the length of the calyx. Ovary pubescent on the angles. The young branches, the bracts, pedicels & calyx are clothed with a light ferruginous appressed pubescence. The branches are divaricate ending in a stout spine. The leaves are 3/4–1 1/4 inch long, 1/2–1 inch wide & of a very light green color.

Bumelia ferox, Cham. & Schlecht. Linnaea, 6. 392? A. DC. l.c. 189?

Loganiaceæ.

Mitreola petiolata, Torr. & Gray; Seem. l.c. 166. Banks of rivulets. Flowers white.

Apocynaceae.

Rauwolfia heterophylla, Roem. & Schultz; A. DC. Prodr. 8, 338; Seem. l.c. 167; Hook. Ic. 366. A wide-spreading bush 8–12 feet high. Fruit deep crimson.

Tabernaemontana amygdalifolia, Jacq.; A. DC. l.c. 367; Seem. l.c. Cruoltepec. A small bush. Flowers odorous.

Tabernaemontana Berteri, A. DC. l.c. 367? var. parviflora? ~~[illegible]~~ Bush 10–20 feet high. Flowers light yellow. The cymes are nearly as long as the leaves. The segments of the corolla are narrowly oblong & rather longer than the tube.

Odontadenia ~~[illegible]~~ inamana sp. n. [illegible]

[illegible] 2"–3" ~~[illegible]~~ longis [illegible] ~~[illegible]~~ [illegible]

[illegible]

[illegible] ~~[illegible]~~

[illegible] 2–3 [illegible] ~~[illegible]~~

[illegible] 2-plo [illegible]

[illegible] folliculis (immaturis) divergentibus [illegible]

(scandent?)

A shrub 10–20 ft high. Fl. white. No glands visible on [illegible] but a lateral tooth on the inner edge of the base [illegible] nor [illegible] in the anthers, but with

a [illegible] in place [illegible] hypogynous glands 4–5 broad rounded at top. Styles entirely connate. Young follicles divergent at a right angle or nearly so smooth linear lanceolate. Petiole less than half an inch long.

Asclepiadaceæ.

Asclepias longicornu, Benth. Pl. Hartw. 24 & Bot. Sulph. 127; DCne. in DC. Prodr. 8, 570. Amotape. In prairies. Flowers greenish-white.

Asclepias subauriculata [illegible] puberula foliis, linearibus basi truncatis subauriculatis breve petiolatis [illegible] acuminatis [illegible], umbellis [illegible] pedunculo [illegible] [illegible] [illegible] [illegible] ~~convolutis~~ [illegible] subequalibus [illegible]

Amotape in woods. Fl. white.

Gonolobus [illegible]

A single specimen with fruits

Gentianaceae

Limnanthemum Humboldtianum Griseb. in DC. Prodr. 9, 140; Seem. l. c. 170; Benth. Bot. Sulph. 128. Ometepec in swamps.

Convolvulaceae.

Ipomoea bona-nox L

Calonyction speciosum, Choisy in DC. Prodr. 9, 345 & Conv. Orient. 59, t. 1; Seem. l.c. 170; Benth. Bot. Sulph. 134. [illegible]

[illegible] / Ipomoea carnea, Jacq. Griseb. l.c. p. 4

Batatas parcerafolia, Choisy l.c. Shrubby 4-8 feet high. Flowers light purple.

Ipomoea quinquefolia Gr. l.c. p. 65

Batatas quinquefolia, Choisy DC. l.c. 339; Seem. l.c.; Benth. l.c. Cuolepec. Flowers light yellow. Called Flor de verano.

Ipomoea fistulosa, Mart.; Choisy l.c. 349; Seem. l.c. 171. Plant 4-8 feet high not climbing. Flowers light purple or pink.

Our specimens have the ovules hairy on the angles & the more matured seed densely covered with long soft hairs. A cross section of the ovary shows it to be 2-celled above the middle & partially 4-celled toward the base.

Ipomoea brachypoda, Benth. Bot. Sulph. 135. Flowers deep purple on the inside.

Ipomoea oocarpa, Benth. Bot. Sulph. 136? The leaves have the oblong pellucid dots as described, but the peduncles are rather stout, angled & corymbosely 3-6 flowered; the sepals are broad obtuse & mucronate. Flowers purple 1 1/4 inch long. Our specimens show none of the glutinous character mentioned as one of the specific distinctions

Ipomaea sidaefolia, Chois. Conv. Orient. 77 & DC. l.c. 372; Seem. l.c. Flowers white.

Ipomaea umbellata, Mey., Chois. l.c. 377; Seem. l.c.; Benth. Bot. Sulph. 182.

Ipomaea trifida, Don? Chois. in DC l.c. 383? Benth. l.c. ~~275~~ 136.

Ipomaea [illegible] Sp. n. fol. cordato-ovatis acuminatis, inaequalis nervis [illegible] petiolis sinu profundo clauso petiolo apice biglandulifero. pedunculo crasso petiolo sub-2-plo longiore floribus fastigiato-umbellatis. pedicellis calyce subaequalibus sepalis ovatis acuminatis. Corollis ~~Aniseia~~ plusque pollicaribus purpureis

Aniseia elutina Sp. n. Tota, corolla excepta, velutina [illegible] cordatis ~~longe et~~ abrupte et longe acuminatis, pedunculis [illegible] subaequalibus 2-floribus dichotomo-cymosis bracteatis sepalis externis late ovatis ~~subcordatis~~ acutis tertio lanceolato internis lineari-lanceolatis. Corolla (semipollicaris) pallide purpurea, calyce 2-3-plo [illegible]
Climbing on bushes Fl. light [illegible]

Polemoniaceæ

Loeselia ciliata, Linn.; Benth. in DC. Prodr. 9, 317; Hemsl. Bio. 172. Ometepec. Flowers light yellow.

Hydroleaceæ

Hydrolea spinosa, Linn.; Chois. in DC. Prod. 10, 181; Benth. Bot. Sulph. 141; Seem. l.c. Omotepec in swamps. Flowers violet.

Solanaceae.

[illegible] Prodr. p. 47

Solanum ~~brachybotryon~~, Dun. in DC. Prodr. 13, 1, ~~212~~ 226. Seem. l.c. 174. Suffruticose 4-8 feet high. Flowers white. Griseb. Fl. Br. W. I. p. 441

Solanum [illegible] Vahl. Gris. l.c. p. 441

Solanum flavescens, Dun. l.c. 254. Flowers yellow. [illegible] Peduncles, pedicels, calyx & corolla covered with a short pubescence. Ovary villous. Fruit densely covered with stellate hairs of which one in each cluster is 1-2½ lines long & jointed.

Solanum scabrum, Vahl; Dun. l.c. 216; Miers in Bot. Herald, 174; Benth. Bot. Sulph. 142. Flowers white—fruit yellow.

Solanum Hernandezii Moç. & Sessé ic. Mex. ined? Dunal in DC. Prodr. 13. 1. p. 266?

Solanum campechiense, Linn.; Dun. l.c. 312. Ometepec in corn lands. Flowers blue. Prostrate or nearly so.

Cestrum leptanthum Dun in DC. Prodr 13 pt 1. p. 666? Suffruticose 6-12 ft high along roadsides. Fl. yellowish green ~~[illegible]~~ Ometepec. In some particulars our plants do not accord with the description. The leaves (rameal) are attenuate at base [illegible] or they have fallen. The calyx is not distinctly angled [illegible] the teeth are more nearly broadly [illegible] than "acutiuscula"

(66)

Solanaceae.

[illegible]

Solanum ~~brachybotryon~~, Dun. in DC. Prod. 13, 1, ~~212~~ 26. Seem. l.c. 174. Suffruticose 4-8 feet high. Flowers white. [illegible]

Solanum [illegible] Vahl. [illegible]

Solanum flavescens, Dun. l.c. 254. Flowers yellow. ~~Pedun~~ Peduncles, pedicels, calyx & corolla covered with a short pubescence. Ovary villous. Fruit densely covered with stellate hairs of which one in each cluster is 1-2½ lines long & jointed.

Solanum scabrum, Vahl; Dun. l.c. 216; Miers in Bot. Herald, 174; Benth. Bot. Sulph. 142. Flowers white—fruit yellow.

Solanum Hernandezii Moç. & Sessé ic. Mex. ined.?
DC. Prod. 13. 1. 266?

Cestrum Parqui, L'Her.; Dun. l.c. 616; Benth. l.c. 143. [illegible], by roadsides. Flowers yellowish-green.

Cestrum [illegible] Dun. l.c. p. 661. [illegible]

~~Cestrum scandens, Vahl.~~ Seem. l.c.?

Schrophulariaceae.

Russelia sarmentosa, Jacq.; Benth. in DC. Prodr. 10, 332 & Bot. Sulph. 144; Seem. l.c. 176. Flowers scarlet.

Stemodia parviflora, Ait.; Benth. l.c. 382; Seem. l.c. Among rocks, by the lake shore. Flowers purple.

Stemodia durantifolia, Sw. Obs. 240; Benth. in DC. l.c. 383 & Bot. Sulph. 144; Seem. l.c. Omotepec in swamps. Flowers bluish-purple.

Capraria biflora, Linn.; Benth. l.c.; Seem. l.c. 177.

Scoparia dulcis, Linn. Segun

Lentibulariaceae.

Utricularia montana, Jacq. Am. 7, t. 6; Hook. Exot. Fl. 3, t. 198; A. DC. Prodr. 8, 23; Seem. l.c. 177. Ouvotipee. Summit of the mountain in the margin of a pool of water ~~filling~~ standing in the crater of the extinct volcano. Flowers white, tinged with purple. Palate with two parallel yellow lines ~~of yellow~~ more or less united

Acanthaceae

Elytraria apargiifolia, Nees, in DC. Prodr. 11, 65; Oerst. Acanthac. Centr-Am. 117; Benth. Bot. Sulph. 145; Seem. l.c. 177. = E. imbricata P. + [illegible] H.B.K.

Nelsonia villosa, Oerst. l.c. 117. Branches prostrate assurgent. Flowers purple—the throat deeper.

Ebermaiera ~~repens~~, ~~Nees. l.c. 77.~~ bracteosa Benth.

Orychacanthus speciosus, Oerst. l.c. 131. A small tree 20–40 feet high. Flowers white.

Aphragmia Haenkei, Nees; Benth. Pl. ~~Hartw.~~ Hartw. 122; Oerst. l.c. 127. Dipteracanthus Haenkei, Nees in DC. ~~Prodr.~~ l.c. 141; Seem. l.c. Flowers purple.

Barleria micans, Nees. l.c. 237; Bot. Sulph. 146; Oerst. l.c. 134; Seem. l.c. Flowers yellow. Plant 3–5 feet high growing on the banks of streams.

Aphelandra pectinata, Willd.; Nees, l.c. 297; Oerst. l.c. 138; Seem. l.c. Benth. Bot. Sulph. 146. Growing along rivulets 4–6 feet high. Flowers scarlet.

Henrya scorpioides, Nees, l.c. 491; Oerst. l.c. 173. Henrya insularis, Nees & Benth. Bot. Sulph. 148, t. 47. In shady woods. Flowers white. The fig. in B. Sulph. is not well observed [illegible] specimen Is it not a wrong reference the name [illegible] being [illegible]

Dicliptera multiflora, Juss.; Nees, l.c. 486; Oerst. l.c. 172; Benth. l.c. 149. In shady woods. Flowers light purple.

Blechum Linnaei, Nees, l.c. 465; Oerst. l.c. 167; Seem. l.c. 179; Benth. l.c.

Bignoniaceæ.

Bignonia unguis-cati, Linn.?; DC. Prodr. 9, 146? Low wood. Flowers pink or very light purple—the tube much more slender than in B. capreolata which it closely resembles.

Bignonia sarmentosa, Bertol.?; DC. l.c., 155? Benth. Bot. Sulph. 128. Ometepec, bank of the Lake. Scandent 10–20 feet high. Flowers light purple.

Anemopaegma? Bignonia?

Amphilophium paniculatum, H.B.K.; DC. l.c. 193; Benth. l.c. 129; Seem. l.c. 180.
The pubescence is stellate or racemose. Is it A. molle, Cham. & Schlecht.

Pithecoctenium? or Dilostoma latifolium?

Foliis 3-foliolatis longe petiolatis foliolis late ovatis basi obtusis abrupte et longe acuminatis. Capsulis crassis lignosis valvis tuberculatis [illegible]. Leaflets 6"×3" calyx 1½" corolla 2" capsule 7"×2" Seeds [illegible]×1" Fl. yellow. Banks of lake Nicaragua Scandent 10°–15° high

Tecoma fuscata, DC. l.c. 219? In flower only

So far as regards the flowers & foliage our specimens agree accurately with the description but the ovary appears as if the valves of the fruit would be parallel to the septum.

Tecoma Guayacan Seem. l.c.
~~Tecoma pentaphylla, Juss.; DC. l.c. 217; Seem. l.c.~~ A large spreading tree 30-50 feet high
The leaflets are abruptly acuminate.

Crescentia alata, H. B. K.; DC. l.c. 247; Seem. l.c. 183. A low spreading tree. Flowers greenish

The leaves are sometimes as many as 4 or 5 from an axil of which 2 or 3 are 3-foliolate.

Labiatae.

Hyptis spicata, Poit.; Benth. in DC. Prodr. 12, 121 & Bot. Sulph. 150; Seem. l.c. 187. Ometepec.

Hyptis pectinata, Poit. Benth. l.c. 127, & Bot. Sulph. 150; Oerst. Cent. Am. Lab. in Cop. Trans. 35.

Hyptis stellulata, Benth. in DC. l.c. 128; & Bot. Sulph. l.c.; Oerst. l.c.

Hyptis suaveolens, Poit.; Benth. in DC. l.c. 127 & Bot. Sulph. l.c.; Seem. l.c. 188.

Hyptis verticillata, Jacq.; Benth. l.c. 129; Oerst. l.c. 35; Seem. l.c.

Salvia occidentalis, Sw.; Benth. l.c. 296; & Bot. Sulph. l.c.; Oerst. l.c. 37; Seem. l.c.

Teucrium inflatum, Sw.; Benth. l.c. 581; Oerst. l.c. 40. Ometepec, in swamps. Flowers very light purple or white.

Boraginaceæ.

Varronia calyptrata, DC. Prodr. 9, 469, Benth. Bot. Sulph. 138. A small spreading tree or large bush 10-15 feet high. Flowers light yellow, anthers brown.

Cordia Gerascanthus, Jacq.; DC. l.c. 472; Benth. l.c.; Seem. l.c. 189. Ometepec, on the edge of prairies. A small tree 10-20 feet high. Flowers white.

Cordia macrocephala, H. B. K.?; DC. l.c. 479? A bush 2-3 feet high in low lands. Flowers white.

Our plants have the stellate pubescence ascribed by Chamisso (Linnaea, 1829, p. 488) to this species, but the leaves are broadly ovate & cordate as in C. eriocephala, Cham. The throat of the corolla is not pilose.

Cordia Collococca L. Sp. Pl. 2, p. 274: DC. Prodr. 9, p. 477.
A tree 20-4 feet high — flowers white.

Ramulis, petiolis, foliisque subtus fusco-puberulis. Calyce extus et interne ferrugineo-villosulo, inequaliter obtuse 5-dentato, corolla glabra 5-fida intus sparse villosa, lobis obtusis.

Staminibus 5 exsertis sed corolla brevioribus. Paniculis 2-3-chotomis folia subaequantibus. Foliis integerrimis ovalibus vel obovatis, basi inaequalibus utrinque 5-7 venis. C. bifurcata aff.

Tournefortia hirsutissima L.? T. scabra Lam.?
A single specimen in flower.

Heliotropium inundatum, Sw.; DC. l.c. 539; Griseb. Fl. Carib. 106; Seem. l.c. 140.
Omotepec, in swamps. Flowers white.

Heliophytum Indicum, DC. l.c. 556; Benth. l.c. 141; Seem. l.c.; Griseb. l.c.

Verbenaceae.

Stachytarpha dichotoma, Vahl; Schauer in DC. Prodr. 11, 561; Benth. Bot. Sulph. 153; Seem. Bot. Her. 188.

Lippia geminata, H.B.K.; Schauer, l.c. 582; Benth. l.c.; Seem. l.c. 189. Ometepec in swamps.

Lippia asperifolia, Rich.; Schauer, l.c. 583; Benth. l.c. Plant 4-8 feet high. Flowers white on the margin, yellow in the throat.

The bracts are more nearly uniform than broadly cordate. Except in the size of the leaves which are 1-1½ inch long our plant seems to resemble closely L. cardiostegia, Benth. l.c. It agrees also pretty well with the description of Lantana lippioides Hook. & Arn. Bot. Beech. 305, which by Benth. is referred to L. asperifolia, & to L. geminata by Schauer in DC. l.c.

Duranta Plumieri, Jacq.; Schauer, l.c. 615; Seem. l.c. 189; Benth. l.c. 154. Ometepec in prairies. A spreading bush 3-6 feet high. Flowers blue.

Plumbaginaceae.

Plumbago scandens, Linn.; Boiss. in DC. Prodr. 12, 692; Seem. l.c. 190; Benth. l.c. 155. Ometepec, common by roadsides. Flowers white.

Phytolaccaceae.

Petiveria alliacea, Linn.; Moq. in DC. Prodr. 13, p. 2, p. 9; Seem. l.c.; Benth. l.c. 158. Ometepec. in fields & by waysides.

Rivina humilis, Linn.; ~~Bolos.~~ Moq l.c. 13; Benth. l.c.; Hook. & Arn. Bot. Beech. 308. Ometepec.

Microtea debilis, Sw.; Moq. l.c. 17. Ometepec. In low lands. Branches prostrate. Flowers white.

Amaranthaceæ

Chamissoa altissima, Kunth; Moq. in DC. Prodr. l.c. 250; Seem. l.c. 191; Benth. l.c. 158.

Sarratia scariosa, Moq. l.c. 269. Amaranthus scandens, (in text) Benth. l.c. t. (A. floridus) 51. Between Virgin Bay & San Juan del Sur.

Sepalis masculis acutiusculis mucronatis — foemineis leviter emarginatis mucronulatis. ~~[illegible]~~ Utriculis infra apicem undulatam rugoso-tuberculatis.

Iresine elatior, Rich.; Moq. l.c. 343; Seem. l.c. Plants 4-6 feet high, suffruticose, erect, branching

Our specimens have staminodia as in Alternanthera — so has an authentic specimen from Moquin in Herb. Gray. They were also found in I. Edmonstonii, Hook. f.

Iresine Havanensis, Kunth; Moq. l.c. 347

The sepals are obtuse or acute.

Iresine [illegible] L. Dieter Syn. Pl. 1, p. 374. Gen. Pl. B. & H. [illegible] [illegible] Alternanthera [illegible] [illegible] p. [illegible]
Trommsdorffia [illegible] Benth. [illegible] Voy. Sulph. p. 157, t. 187

A feeble spreading, [illegible] [illegible] 10–30 [illegible] [illegible] ~~Fl. light greenish yellow~~ Fl. white?

~~Iresine [illegible] Gr. Fl. Bras. [illegible] p. 65? [illegible] [illegible] Benth l.c. p. 157? [illegible] [illegible] p. l.c. p. 384?~~
~~Our plant ill agrees with the~~

Iresine [illegible] sp. n.

The specimens do not quite agree with any descriptions whether generic or specific nor with any figures accessible. They are probably male [illegible] could be easily determined [illegible] but [illegible] very [illegible] but the sepals are [illegible] [illegible] The stamens [illegible] have prominent [illegible] [illegible] The ovary is conspicuously stipitate and terminated with bifid style as long as the ovary and its stalk. Sepals 1-nerved.

A feeble spreading suffruticose plant 8-15 inches high. Flowers greenish yellow

Telanthera pubiflora Moq. l.c. p. 375. Seem. l.c. p. 191.
Brandesia pubiflora Benth l.c. p. 157
4-5 ft [illegible]

Gomphrena globosa L. Moq. l.c. p. 409.

[illegible]

~~Alternanthera aurata, Moq. l.c. 353?~~
~~A feeble spreading shrub 8-15 feet high. Flowers light greenish yellow.~~

~~Sepals 1-nerved (3-nerved, Moq) obtuse (acutish, Moq) Spikelets opposite (Moq) & alternate. Stems 8-15 feet high (2-3, Moq.). Leaves 2-3 inches long (3-4 Moq) 1-2 inches broad (10-12 lines Moq.)~~

~~Alternanthera~~ [illegible]

~~Telanthera pubiflora, Moq. l.c. 375; Seem. l.c.; Brandesia pubiflora, Benth. l.c. 157; Plants 4-8 feet high~~

~~Gomphrena globosa, Linn.; Moq. l.c. 409.~~

Nyctagineae.

~~Pisonia obtusata, Sw. Fl. Ind. Oc. 1960; Chois. in DC. Prodr. 13, pt. 2, p. 443; Benth. Pl. Hartw. 265. A spreading bush 8-12 feet high on sandbanks near the lake. Flowers (Stam) greenish.~~

Boerhaavia erecta, Linn.; Chois. l. c. 450; Grisib. Pl. Carib. 28.

Pisonia inermis Jacq? Gris. Fl. B. W. I. p. 71?

The specimens are only in flower, and the flowers staminate but they accord better with such specimens & figures as are accessible of P. inermis Jacq. than of P. [illegible] which [illegible] spines. The older branches have a few straight spines or spine-like branchlets. The terms "inermis" & "spinosa" must be taken with considerable allowance for variation. I do not remember to have seen any but P. obtusata that was [illegible] of spines

A small tree 15-20 ft high. Flowers greenish.

Pisonia aculeata L. Sp. 1511? Chois. in DC. Prodr. 13. pt. 2 p. 440. Gris. l. c. p. 70?

The fruits are 5/8 inch long and 1/4 in thick glandular nearly to the base. Sparingly armed with straight spines. No 2471 Fendl. from Venezuela is the same plant with the same fruit & the same spines

Polygonaceæ.

Polygonum acre, H. B. K.; Meisn in DC. Prodr. 14, 107; Seem. l. c. 192; Griseb. l. c. 46; Benth. Bot. Sulph. 159. Margin of rivulets. Flowers white.

Coccoloba ~~Caracasana~~ Barbadensis, Jacq.? Meisn. l. c. ~~157~~ 153? A tree 40 feet or more high with white flowers.

Coccoloba obtusifolia, Jacq. Hist. Stirp. Am. 114, t. 74; Meisn. l. c. 161. Staminate flowers yellow, filaments white, anthers yellowish

Our specimens agree very exactly with the figure cited. The leaves are mostly ~~inequi~~ inequilateral at base.

Triplaris Americana, Linn.; Meisn. ~~l.~~ l. c. 178.

Our specimens agree better with the character of T. auriculata than any other except in the very point whence the genus it derives its name — for there is no trace of the auricles connected with the inner segments of the perianth. From T. Surinamensis it differs in being more or less clothed in all its parts with a ferruginous pubescence; in having no striæ on the leaves.

Lauraceae.

Oleodaphne (Ceramophora) ~~Sepals 5-6 mm. 9 Stamens glandular [illegible]. Stamens usually 6 outer introrse, 3 inner thickened & sub-4-gonous & the anther cells on the edges — the cells of each anther being contiguous & ~~[illegible]~~ or opposite to those of the ~~adjoining~~ adjacent anther, not looking inward. Staminodia small subcapitate. 3 inner Stamens biglandular at the base.~~

~~**Oleodaphne?** (In fruit only)~~

Camphoromoea Surinamensis Meisn in DC. Prod. 15 pt 1, p. 140?

"A spreading shrub 6-12 ft high. The specimens in fruit can not be more certainly determined [illegible]

Daphnidium Venezuelense Meisn in DC. Prodr 15. sect. 1. p. 171.
This is surely the plant of Meisn although there are some slight discrepancies between the description and our specimens The stamens are hairy, acute and the inner series has the upper anther cell looking obliquely upward and laterally while the lower one is exactly lateral & covered by the gland

Aristolochiaceæ

Aristolochia grandiflora, Sw. Prodr. 126; Fl. Ind. Oc. 3, 1566; Willd. Sp. Pl. 4, 155. Omotepec, Climbing over trees & bushes. Tube of perianth at base yellow with dark red specks, — orifice dark red. Border mottled & veined with yellow & red.

Aristolochia anguicida, Jacq. l. c. t. 144; Willd. l. c. 156. Climbing on bushes. Flowers greenish streaked with dark red.

[illegible]

Caryophylleae.

Glinus ~~trigynus? Hook. f.~~ [illegible]
[illegible]
[illegible]

Euphorbiaceæ.

Euphorbia maculata, Linn.; Willd. Sp. Pl. 2, 896? Gray, Man. 386. Growing in crevices of rocks near the lake.

Euphorbia anceps, Benth. Bot. Sulph. 162; Walp. Ann. 1. 615. Ometepec. in prairies.

Euphorbia pilulifera, Linn.; Willd. l.c. 897; Seem. l.c. 99; Benth. l.c.

Euphorbia hypericifolia, Linn.; Willd. l.c. 895; Seem. l.c.; Benth. l.c. Banks of rivulets.

Euphorbia adiantoides, Lam.; Willd. l.c. 901; Benth. l.c. By roadsides near San Juan del Sur.

[illegible] Euphorb. p. 18 et DC [illegible]?

[illegible] ft high [illegible] the edge of thickets. Ometepec

[illegible] disk—inner segm, each oval [illegible]

Euphorbiaceæ.

Euphorbia maculata, Linn.; Willd. Sp. Pl. 2, 896? Gray, Man. 386. Growing in crevices of rocks near the lake.

Euphorbia anceps, Benth. Bot. Sulph. 162; Walp. Ann. 1, 615. Ometepec in prairie.

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Euphorbia hypericifolia, Linn.; Willd. l.c. 895; Seem. l.c.; Benth. l.c. Banks of rivulets.

Euphorbia adiantoides, Lam.; Willd. l.c. 901; Benth. l.c. By roadsides near San Juan del Sur.

Euphorbia (? nudiflora [illegible]
Procumbent among the sand — [illegible]
staminate inflorescence [illegible]
pedicels with one or more? [illegible]
bescent towards the top — [illegible] 3 [illegible]
filaments. Outer segments of the perianth [illegible]
by oval subinflexed with a large [illegible]
disk — inner segm. not [illegible]

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Dalechampia sidæfolia, Kunth; Spreng. Syst. Pl. 3, 86; Benth. l.c. 163. Ometepec, in woods, scandent

Tragia volubilis, Willd, Sp. Pl. 4, 322; Griseb. l.c. 22. Plants 2-4 feet high growing in thickets

Garcia nutans, Vahl; Willd. l.c. 492; Juss. Euphorb. 41, t. 13, f. 40. Ometepec. A stout spreading bush 6-12 feet high. Flowers dark red.

Astræa Seemanni, Klotzch in Bot. Herald 103. Ometepec, in low ground.

Argythamnia decandra vel oc[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] ovali-lanceolatis denticulatis [illegible]
[illegible] [illegible] ~~[illegible]~~ fl. ♀ petalis integris. Stam. 10 exterioribus
~~duo~~ brevioribus glandulis margine incrassatis Seminibus scrobiculatis

Without an examination this might at once be referred to Argythamnia candicans but the leaves have much finer teeth are less strongly veined beneath ~~[illegible]~~ the whole plant sericeous the stamens ten the five outer [illegible] shorter & the seeds [illegible] scrobiculate. [illegible] [illegible] not cut

If this be an Argythamnia. Aphora of Nuttall must be merged [illegible]

1.

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Dalechampia sidaefolia, Kunth; Spreng. Syst. Pl. 3, 86; Kunth. l.c. 163. Omotepec, in woods, scandent

Tragia volubilis, Willd. Sp. Pl. 4, 322; Grisb. l.c. 22. Plants 2-4 feet high growing in thickets

petals. Pistillate flowers [illegible] as long as the staminate — [illegible] with [illegible] [illegible]. Styles [illegible].

Caperonia palustris, St. Hil.; Spreng. Syst. Veget. c.p. 314? Croton palustre. Linn.; (Willd. ~~Sp. Pl.~~ l.c. 535? Omotepec, in marshy grounds. Staminate flowers white. Pistilate flowers sepals unequal the 3 outer smaller. Petals wanting.

Cicca Antillana, Juss. Euphorb. t. 13, ~~Spirit. b. a. 24.~~ Emolepec. A bush 8-12 feet high. Flowers greenish.

Euphorbiacea Staminate flowers only

Euphorbiacea? Specimen. Pistillate [illegible]

Urticaceæ.

Urera baccifera, Gaudich.; Wedd. Monogr. Urtic. 151; Seem. l.c. 194. Ometepec. Shrubby 5-10 feet high, sparingly branched.

~~Ficus (Urostigma) trigona, Linn. f. Suppl. p. 441? Miq. Lond. Journ. Bot. 6. 548? Plum. Ic. t. 132, f. 1. Ometepec. A large tree 40 feet or more in height by the margin of the lake.~~

~~Our plant specimens have the leaves somewhat emarginate at the base & the fruit seems smaller than in the figure referred to.~~

Ficus (Urostigma) sapida Liebm. Urtic. Centro-Am. p. 43, no. 18; Miq. Bot. Herald, 195. Ometepec. A large tree 20-40 feet high on the margin of the lake.

Ficus (Urostigma) tecolutensis, Liebm. l.c. p. 40 No. 12. Ometepec. A large tree 40° high or more on the margin of the lake.

Cecropia obtusa, Trecul in Ann. des Scienc. Nat. 3d Ser. 8, 79. Ometepec. A large tree growing by the margin of the lake.

Piperaceæ.

Peperomia (? [illegible] sp.) has longer petiole (1½–2 inches) smaller leaves (3–4 inches by 1½) & shorter aments (2–2½ inches)

Peperomia (? [illegible] sp.) In our specimens the leaves are somewhat larger (5–7 inches long & 3½ inch wide. The aments are [illegible] [illegible] long [illegible] (4–7 inches)

Pothomorphe peltata, Miq. Syst. Piper. 203; Benth. Bot. Sulph. 167. Plants 2–4 feet high growing on the banks of rivulets.

Artanthe v Schilleria

[illegible] high [illegible]

Schilleria ~~Artanthe~~ caudata, ~~Miq.~~ Kunth. Conis in Fl. B. [illegible] l.c. 380; Seem. l.c. 198. Guacapee on the banks of the lake. Plants 3–5 feet high branching. Nom. vernac. Cordoncillo.

Our specimens have the nerves & principal branches on the upper surface of the leaves pubescent; on the lower ~~side~~ they are quite smooth. The leaves are 5–9 inches long.

[illegible]

~~Artanthe plantaginea~~, Miq. l.c. 387.
Our specimens agree pretty well with the description but the stigmas are only 3 & the bracts appear to have a dense tuft of glandular hairs on the very apex

Artanthe elongata Miq. l.c. 434.
Growing along rivulets. Plants 8-12 feet high
The lower side of the leaves is thickly covered with minute blackish dots.

Artanthe Seemanniana, Miq. in Bot. Herald, 199.
Our specimens have leaves exceeding the measurements give in the original description they being fully a foot in length by 7 inches wide. They are slightly pubescent all over the upper surface and the lower is covered with a dense but short pubescence that of the nerves & veinlets being longer appressed & divergent. The wings of the quite smooth petiole are similarly pubescent. The (young) aments are slender & only 2-4 inches long tipped with a short rather blunt mucro.

Artanthe tuberculata, Miq. l.c. 447 & ~~See~~ Bot. Herald. 199; Benth. Bot. Sulph. 167. One spec in wood. Plants 2-4 feet high, branching.

A. variety with leaves 1–2 inches long has the petioles & the lower part of the midrib of the ~~leaf~~ leaves conspicuously tubercular & the stigmas as often 2 as 3.

Artanthe oblonga, Miq. l.c. 480? Onotupee. In woods & thickets. Branching 6–10 feet high

(93)

Chloranthaceæ

Hedyosmum Bonplandianum, Kunth? ~~Roem.~~ Spreng. Syst. Veget. 3, 866? Summit of Orudupec. A widely spreading bush. 8-15 feet high. Berries white subpellucid. The leaf-nerves are more oblique & than in Fendlers Venezuelan spec imens. The upper leaves are also more acuminate & more ~~[illegible]~~ serrate [illegible] the lower larger [illegible] [illegible] [illegible]

Naiadaceæ.

Caulinia fragilis, Rostk.; Kunth, Enum. Pl. 3, 114. In small dense tufts on the margin of the lake.

Podostemaceæ.

Tristichia hypnoides, Spreng. Syst. Veget. c. p. 10; Tulasne, Monog. Podost. 186, t. 10, f. 4; Growing in dense patches on rocks in the margin of the lake

Some plants have the flowers nearly or quite sessile. The leaves on young shoots are sometimes fully 1/10 inch long.

Araceæ.

Lemna polyrhiza, Linn. Ometepe
In ponds.

Limnonesis Friedrichstaliana Klotzsch über Pistia, p. 24. In small tributaries (stagnant) of the lake.

The leaves of our plants are generally smaller (½–1 inch long) than those of Klotzsch & the anthers are 4 – the dissepiment between the upper & lower cell on one side of each anther seems obliterated or wanting.

Anthurium Hookeri, Kunth, Enum. Pl. 3, 74; Seem. l.c. 212. Ometepe, on trees & stumps
The petioles are only 2–3 inches long.

Monstera [illegible] ~~Adansonii~~, Schott; Kunth, l.c. 60; Griseb. Pl. Carib. 110. Omotepe, in forests, climbing 10–20 feet high on trees.

There are two other species insufficient for determination.

Cannaceae.

Thalia geniculata, Willd. Sp. Pl. 1, 15; Seem. l.c. 213. In marshes 10 feet high called "Platanillo"

Hypoxidaceae

Hypoxis erecta, Linn. Little Corn Island.

Bromeliaceae.

Tillandsia usneoides, Linn.; Willd. Sp. Pl. 2, 15; Griseb. l. c. 126

Tillandsia brachycaulos, Schlecht. in Linnaea, 18. (1844) 422. Ometepec. Epiphyte.

Tillandsia Schiedeana, Steud. T. vestita, Cham. & Schlecht. in Linnaea, 6. 52 (ex Steud.) Ometepec. Epiphytic. Flowers yellow.

~~Caraguata~~ [illegible]

Tillandsia vittata [illegible] [illegible] (1318)?

The specimens, [illegible] with certain ones so named by P[illegible] [illegible] at least specimens though in one [illegible], the [illegible] are quite [illegible]. They [illegible] quite [illegible] the [illegible] [illegible]

Pontederiaceae

Pontederia

[illegible]

Pontederia [illegible] sp. n.

Much like P. [illegible] this but the [illegible] are much longer and curved outwards not simply [illegible]

2-4 ft high – in marshes. Fl. light purple – yellow spot on the upper segment – or [illegible] blue. called by the natives "[illegible]"

Commelynaceæ.

Commelyna agraria, Kunth, Enum. Pl. 4, 38; Seem. l.c. 220; Griseb. l.c. 111. Low grounds along streams.

Orchidaceæ.

The orchids collected were few in number and very decayed as specimens. Of these some were sent to Dr. Lindley, but no names for them were given unless they were written in the Folia Orchidacea. The remaining specimens are quite incomplete and very incapable of determination ~~from a part~~ or ~~other~~ except by comparison with large collections. These therefore of this number it would be sent to Dr Reichenbach in whom it is to be hoped they may be named.

Cyperaceae.

Cyperus compressus, Linn.; Kunth. Enum. Pl. 2, 23; Griseb. l.c. 118. Shore of the lake

Cyperus Surinamensis, Rottb.; Kunth. l.c. 43; Griseb. l.c. 118. Ometepec, margin of rivulets.

Cyperus strigosus, Linn.; Kunth, l.c. 87. Ometepec. A dwarf form in dry soil.

Cyperus articulatus, Linn.; Kunth, l.c. ~~89~~ 53; Griseb. l.c. 119. Ometepec, In large bunches on rocks in the lake.

Fimbristylis Vahlii, Link; Kunth, l.c. 224. Ometepec. On the margin of the lake growing among pebbles.

Cyperus lasiocephalus ? sp. n.
Fimbristylis? Capitulis glomerato-compositis ~~partialibus~~ glomerulis sub-3-quetris squamis carinatis undique imbricatis inferioribus vacuis majoribus, omnibus abrupte acuminatis supra medium longe ciliatis (acumine glabro). Achenia ovali levi basi styli æqualis apiculato longioribus. Stamina 3. Filamentis applanatis. Stylo bifido glabro

Graminea

Paspalum conjugatum, Bergh.; Kunth, Enum. Pl. 1, 51. Omotepe by roadside.

Paspalum complanatum Nees, Kunth, l.c. 49. Omotepe in swamps.

Hymenachne Myurus, P. de B.; Griseb. l.c. 117. Panicum Myurus, Lam.; Kunth, l.c. 86. Margin of ponds.

Panicum fimbriatum, Kunth. l.c. 81

Panicum hirtum, Lam? Kunth, l.c. 111? Omotepe on the summit of the mountain

Panicum pilosum, Sw. Fl. Ind. Oc. 1, 141; Kunth, l.c. 95. Omotepe. In dry woods.

Ischaemum latifolium, Kunth. l.c. 514; Griseb. l.c. 118, Summit of Omotepe.

Eragrostis ciliaris, Linn.; Kunth, l.c. 337; Griseb. l.c. 112; Nees, in Bot. Herald, 225. Omotepe.

Eragrostis reptans, Mich.; Kunth, l.c. 336. Omotepe. Low grounds.

Lycopodiaceae

Lycopodium carolinianum L. Sp. pl. 1104. Willd. Sp. 5. p. 14 Gris. l. c. p. 646

Summit of Ometepec

Lycopodium clavatum L. Sp. Pl. 1101. Willd. l. c. p. 16 Gris. l. c.

Summit of Ometepec

Lycopodium cernuum L. Sp. Pl. 1103. Willd. l. c p. 30 Gris l. c. p. 647

Summit of Ometepec

Lycopodium Selago L. Sp. Pl. 1102? Willd l. c. p 49?

Lycopodium reflexum Lam. Willd. l. c. p. 52. Gris l. c. p. 647

Summit of Ometepec

Selaginella sp?

Marsilea villosa Kaulf.

Chara sp.?

Among pebbles in the edge of lake Nicaragua

Salvinia sp.? auriculata Aubl?

Nicaragua